

SUPPORT FOR THE AMENDMENT

Support for the amendment to claim 1 is found in claim 1 as originally presented. Support for the amendment to claims 21 and 22 is found in claim 3 as originally presented. No new matter would be added to this application by entry of this amendment. No new issues would be raised before the examiner by entry of this amendment, as applicant has merely corrected the claim language to include limitations previously considered by the examiner. Entry of applicant's amendment and full consideration thereof at this stage of prosecution is respectfully requested.

REMARKS

The present invention is directed to a process for the electrolytic transformation of at least one furan-based compound, in an electrolysis circuit comprising conducting in an electrolysis cell, electrolytic oxidation and hydrogenation.

Furan or furan derivatives have been subject to separate electrochemical oxidation and subsequent hydrogenation of a double bond, in the preparation of useful organic compounds. Less complex methods are sought.

The present invention addresses this problem by providing a method for the electrolytic transformation of a furan-based compound comprising conducting electrolytic oxidation and hydrogenation in an electrolysis cell in which at least one hydrogenation catalyst is present. Applicant has discovered that both electrolytic oxidation and hydrogenation may be performed in an electrolysis cell in which at least one hydrogenation catalyst is present. Such a process is nowhere disclosed or suggested in the cited prior art of record.

The rejection of Claims 1-2 under 35 U.S.C. § 103(a) over Ponomarev et al. is respectfully traversed.

Ponomarev et al. does not disclose conducting hydrogenation in an electrolysis cell. The reference describes at pg 993, that the thus-obtained dimethoxydihydrofuran derivatives are then converted into the corresponding dimethoxytetrahydrofuran compounds by hydrogenation in alcohol, in the presence of Raney nickel. Ponomarev et al. clearly discloses that the hydrogenation is carried out, external to the electrolysis cell, in a rotating steel autoclave (see page 995, first paragraph). Thus, the process according to Ponomarev et al. is not carried out in an electrolysis cell in which at least one hydrogenation catalyst is present.

In contrast the claimed invention is directed to a process for the electrolytic transformation of at least one furan-based starting compound (A) in an electrolysis cell in which at least one hydrogenation catalyst is present. Applicant notes that the claims have been amended to recite the presence of at least one hydrogenation catalyst in the electrolysis cell. Since Ponomarev et al. fails to disclose or suggest a process in which hydrogenation is carried out in an electrolysis cell in which at least one hydrogenation catalyst is present, the reference fails to disclose or suggest all limitations of the claimed inventions.

Furthermore, there is no suggestion in the cited reference to conduct electrolytic oxidation in an electrolysis cell, in which at least one hydrogenation catalyst is present.

Ponomarev simply conducts electrolytic oxidation in an electrolytic cell, in the absence of a hydrogenation catalyst. There is no disclosure of the presence of a hydrogenation catalyst and accordingly the reference fails to disclose or suggest this claim element.

In contrast, the present invention is directed to a method in which electrolytic oxidation is conducted in an electrolytic cell in which at least one hydrogenation catalyst is present. Applicant notes that the claims have been amended to recite the presence of at least one hydrogenation catalyst in the electrolysis cell. As the cited reference fails to disclose or suggest the claim limitation of conducting electrolytic oxidation in an electrolytic cell in the

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presence of at least one hydrogenation catalyst, the claimed invention is clearly not obvious over the cited reference and accordingly, withdrawal of the rejection under 35 U.S.C. §103(a) is respectfully requested.

Applicant submits that this application is now in condition for allowance and early notification of such action is earnestly solicited.

Respectfully submitted,

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